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PATENT ABSTRACTS OF JAPAN

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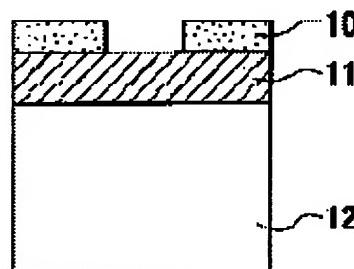
(54) METHOD FOR
MANUFACTURING
SEMICONDUCTOR DEVICE

(57) Abstract:

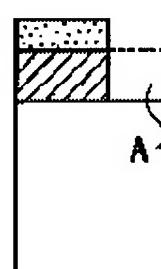
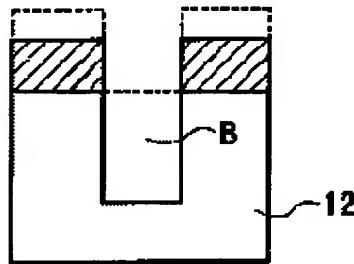
PROBLEM TO BE SOLVED: To manufacture a hollow in a substrate with satisfactory controllability.

SOLUTION: This method comprises a thin film accumulating step for accumulating a thin film on a semiconductor substrate (a), a thin film opening step for forming an opening at the thin film, by removing one part of the thin film and exposing the semiconductor substrate (b), a groove forming step for forming a groove having an opening which is not larger than the opening at the semiconductor substrate by removing one part of the exposed semiconductor substrate (d), and a heat treatment step for carrying out heat treatment to the groove and closing the opening of the groove (e).

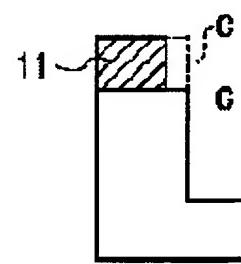
(a)処理前



(b)薄膜エ

(c)反応性イオンエッチャング
およびレジスト除去

(d)薄膜後

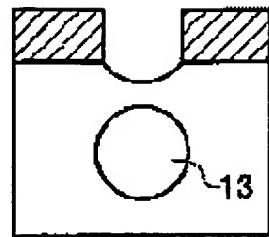


(e)熱処理

(f)薄膜除

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10 : レジスト膜
11 : 基板
13 : 空洞

12 : 空洞
13 : 空洞